

# Australian Farmers Watch World Prices

ustralia is forecast to produce its second-largest wheat crop on record in 1996/97. On the strength of expanded area and improved yields, output would be up 27 percent from last year, amounting to 21.5 million metric tons in 1996/97, and approaching the record set in 1983/84. The production gains are expected to translate into a nearly 20-percent increase in wheat exports, reaching 14.5 million tons for the July-June trade year.

Australia is a major exporter of wheat, with a 10-percent share of the world market during the past 4 years (1992/93-1995/96). Australia, the U.S., the European Union (EU), Canada, and Argentina are the largest wheat exporting nations and account for about two-thirds of global exports.

As with wheat, most of Australia's other agricultural output is exported. From 1990/91 to 1995/96 (local marketing year for crops and dairy, and calendar year for livestock), agricultural exports included 99 percent of wool production, 90 percent of cotton, 79 percent of nonfat dry milk,

79 percent of sugar, 77 percent of rice, 73 percent of wheat, 64 percent of beef and veal, 41 percent of coarse grains (barley, sorghum, oats, and corn), and 48 percent of lamb and mutton.

Agricultural exports made up 36 percent of the value of Australia's commodity exports in 1995/96, according to the Australian Bureau of Agricultural and Resource Economics (ABARE). The five leading agricultural exports as a share of total agricultural export value are wool (18 percent), wheat (17 percent), beef and veal (12 percent), dairy products (8 percent), and sugar (8 percent).

Although agricultural exports are forecast to increase in volume in 1996/97, the value is likely to be slightly lower than in 1995/96 as prices recede. This is contributing to a lowering of returns to farm operators in 1996/97. Leading the expected decline in export value are wheat and sugar, each forecast 12 percent lower.

# Wheat Acreage Reflects Strong Prices

Australia's huge wheat crop follows an estimated 14-percent surge in harvested area to 11.1 million hectares as farmers responded to strong price signals at planting time. During the previous 9 years (1987-95) harvested acreage of wheat averaged only 8.7 million hectares annually. Some areas shifted to wheat from other production activities, particularly sorghum and wool, because wheat price forecasts appeared to offer relatively more favorable returns at the time planting decisions were being made.

In addition, favorable weather during the growing season has boosted wheat yields by about 8 percent to a near-record 1.94 metric tons per hectare, second only to 1993/94's bountiful output. Australia's wheat crop is planted in April-May and harvested during September-December.

In Australia, large areas of countryside are productive only for grazing, and cropping occurs mainly along the east and west coasts. Annual rainfall averages range from 17 to 24 inches across the principal field crop regions, similar to that in the U.S. Northern Plains. Severe

drought occurs once or twice per decade in Australia, most recently in 1994/95—the worst in over 20 years, cutting grain production by nearly 50 percent. Much of the central part of the country is not suitable for either crops or livestock.

In the absence of government price support schemes and mandatory planting requirements, Australia's farmers make production decisions purely on a commercial basis. As a result, Australia's farmers closely watch international market prices, and are ready to respond rapidly to changes in global supply and demand conditions.

Over 70 percent of Australia's wheat crop is standard white wheat (including Australian durum and soft wheat) with protein content of 8-10 percent. The rest of the crop is composed of hard, prime hard, and general purpose wheats.

Most white wheat is soft and is used domestically, like U.S. Soft Red Winter, primarily for making cookies, cakes, and crackers or for cereal products. In addition, Australian white wheats are used for making bread and Asian noodles. White wheat is attractive in export markets that prefer the white color or are not accustomed to bleaching flour. East Asian markets use the low-protein white wheat for noodles and dumplings. South Asian markets use white wheat for chapatis unleavened bread similar to pita. White wheat also competes with lower protein hard wheats and with coarse grains in Australia's feed markets.

Most of Australia produces low-protein wheat, mainly in the western and southern areas. When soil moisture and rainfall have been low and the optimum planting period is past, farmers in these regions may switch to barley or canola. A limited area is planted to higher protein wheat, mainly farther north in New South Wales and Queensland. When high-protein wheat areas are dry at planting time, farmers may opt for sorghum or cotton.

Wheat can generally replace coarse grains in many rations if minor adjustments are made. Relative grain prices are the primary determinants in livestock feed decisions. Most wheat that is fed is used on

# Australia's Wheat Board Is Its Sole Wheat Exporter

The Australian Wheat Board (AWB) is the wheat industry's statutory marketing authority, with monopoly power over wheat exports. The wheat board markets wheat and other grains and provides financing to growers at harvest time.

Producers are paid via a pooled price mechanism, receiving an initial advance followed by additional payments corresponding to the average value of all sales made by the AWB for each pool. The initial payments are underwritten by a government guarantee, which can enable the receipt of more favorable interest rates on loans. Also, the access to additional funds allows diversification of risk by investing in other projects.

The AWB was set up in 1939 to acquire Australian wheat because of marketing and transport problems associated with the war. In 1948 it was reorganized to be the central marketing authority for wheat under federal and state enabling legislation. As such, it administered wheat stabilization and marketing arrangements.

In 1989, with the deregulation of the domestic market, price supports were removed. The AWB was expanded to include other grains, and the Wheat Industry Fund (WIF) was established. The WIF is a nonsales source of revenue and collects a 2-percent levy on wheat from growers to build AWB's capital base. This base funds its cash trading operations and will be crucial to cover initial pool payments for delivered wheat when current government-guaranteed borrowing is eliminated in 1999.

With deregulation of the domestic market in 1989, growers can now sell directly to the domestic market or to the AWB; however, the AWB retained single-desk export status (at least for the next 5 years). It is no longer required that state government authorities be used for grain storage, handling, and transport.

Because the majority of Australia's wheat is exported, the AWB remains the principal buyer of the wheat crop. The AWB is also involved in market service activities in numerous countries to enhance Australia's commercial wheat sales prospects. These activities include investment for flour and feed mills, a storage facility, and a training bakery in China; a flour mill in Vietnam; and a flour mill and grain handling complex in Egypt. The AWB also supplied grain handling equipment for bunker storage in Iran, and a hot bread shop in Moscow.

A great deal of controversy is being generated in Australia over the government's wish to commercialize the AWB. The plan is to change the structure of the AWB so that government involvement is removed and it becomes a wholly grower-owned-and-controlled entity. Because of the drop in wheat prices this year, the AWB's strategies on marketing and risk are undergoing increased scrutiny. The exact structure of the reformed Wheat Board has not yet been agreed upon, and some growers have been suggesting plans that include some continued government involvement.

or near farms where the wheat is produced. While coarse grains continue to provide the basis for most animal feed in Australia, wheat feeding appears to have increased in recent years. If feed wheat varieties continue to be adopted, national average yields should continue to gain.

Feed use of wheat is expected to continue to increase in the longer term with increases in dairy and cattle feeding.

Australia's wool industry has a significant influence on wheat production and competes for farm resources—e.g., land and

labor—in many areas of Australia. When wheat prices are high relative to wool, farmers are likely to transfer some resources out of sheep grazing for wool production and into wheat.

In 1996/97, competition in the international wheat market has been heating up as shipments increase from all the major exporters except the U.S. The EU has reinstituted export subsidies, and Canada and Argentina have been aggressively marketing their crops. Despite the sharply increased competition, Australia's share of world trade is expected to jump to over 16 percent in 1996/97 on the strength of its large harvest.

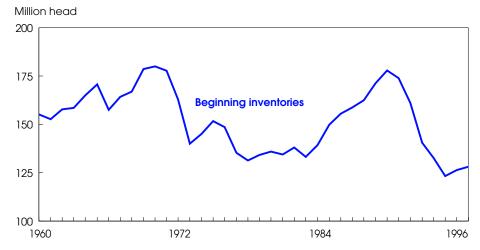
Australia has a reputation for supplying high-quality grain to the international wheat market. But its inability to produce large volumes of high-protein wheat is a marketing weakness. The Australian Wheat Board (AWB), the country's sole wheat exporter, routinely offers premiums for Australian standard white wheat at 10-11.4 percent in an effort to upgrade the protein content of its export supplies.

The primary destinations for Australian wheat have been Japan, Indonesia, South Korea, Malaysia, China, and Iran. These countries generally account for about three-fourths of total Australian wheat exports. Australia imports very small quantities of wheat products, mainly pasta from Europe.

## Livestock Holdings Are Gaining

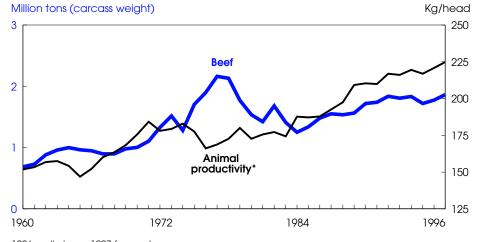
Sheep are raised principally for wool in Australia, while lamb and mutton are of lesser importance. Australia is the world's leading producer and exporter of wool, averaging 34-percent and 62-percent shares, respectively, during 1989/90-1994/95. Over that same period, Australia's sheep numbers averaged 147 million head annually. However, dramatic reductions in sheep stocks occurred during the first half of the 1990's, falling from a 20-year peak of 178 million head in 1990 to 123 million in 1995. The decline was precipitated by falling wool prices and drought.

#### Australia's Sheep Stocks Turn Up



1996 preliminary; 1997 forecast. Economic Research Service, USDA

#### **Beef Output Grows Steadily As Productivity Increases**



1996 preliminary; 1997 forecast. \*Annual weight gain per animal.

Economic Research Service, USDA

In 1991 the grower-funded wool floor price (the Reserve Price Scheme) was suspended. The wool price had increased about 104 percent between 1984/85 and 1988/89. As a result, sheep numbers and wool production had increased rapidly during that period. Huge increases in Australian stocks occurred when export demand slowed in 1989/90 in both the former Soviet Union and Japan. By 1992/93, prices were half the peak level of 1988/89, and China became a major market.

Improved returns for wool in 1996 as well as for lamb and mutton have reversed a steep decline in sheep holdings, and inventories have begun to grow again this past year. Beginning sheep inventories for 1997 are projected at 128 million head and are projected to continue growing in 1997.

Beef production (carcass weight) has been slowly increasing from a 20-year low of 1.2 million tons in 1984, but remains well below the record levels of the mid-1970's when production peaked at 2.2 million in 1977. In 1997, beef production is projected to reach 1.9 million. The increase is attributable both to gradually upward trending slaughter numbers and to strong gains in animal productivity—i.e., weight gain per animal.

Much of the growth in animal productivity is due to growth in feedlots. The majority of Australia's cattle are grassfed, with only about 25 percent passing through feedlots in 1994/95. This is in contrast to the U.S. where about 95 percent is lot-fed. Over half of Australia's cattle are produced on the pasture lands of Queensland where only limited wheat and other grain production occurs. Most of the feedlots have been constructed in the south of Queensland and northern New South Wales.

About 70 percent of Australia's fed-beef production is for export, mainly to Japan. Feedlot capacity increased rapidly after the Japanese agreed to liberalized beef imports. From 1988 to 1991, Japan gradually increased beef import quotas. After 1991, Japan's quotas were replaced with a tariff. However, after 4 years of belowaverage rainfall in Queensland, and the devastating drought of 1994/95 which cut grain production in half, producers are rethinking the future of feedlots and cattle feeding in Australia, and only modest growth in feedlot capacity is forecast for the next several years.

Feedlot placements are down this year, not only because of high feed costs and a weak market in Japan, but also because of difficulty in sourcing suitable cattle. Areas that had been supplying cattle to the feedlots are now also exporting live cattle, mainly to the Philippines and Indonesia.

Strong demand and firm international prices are expected to drive up live cattle exports about 24 percent in 1996 to 630,000 head. Exports are forecast to continue to grow in 1997, but at a more modest rate. Live cattle are exported at 18-22 months of age, much younger than the age of cattle slaughtered in Australia, which means faster turnover rates and greater carrying capacity.

Although revenues from live cattle exports are increasing, they have not been able to fully cover the declines in beef export revenues in 1996. Weak international prices and increased competition were expected to leave Australia's 1996 beef exports little changed from the year before at about 1.1 million tons, but at a substantially lower total export value. Some increase in exports is expected in 1997.

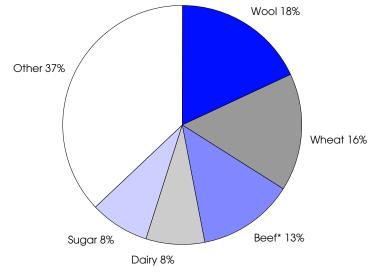
Since 1993, Japan has replaced the U.S. as Australia's major market for beef. Australian beef exported to Japan is both grain- and grass-fed, while exports to the U.S. are mainly grass-fed, frozen, manufacturing beef.

With the liberalization of Japan's beef market and the construction of new feedlots in Australia, the export of fed, chilled beef to Japan has increased rapidly. However, Australia has been losing market share in Japan to the U.S. Large output has reduced U.S. prices and improved U.S. competitiveness in the international grain-fed beef market. In addition, Australia-as well as the international beef market-was dealt an unexpected setback by a sharp drop in Japanese imports in mid-1996, due in large part to the untimely occurrence in Japan of food-contamination deaths (albeit unrelated to beef). This occurred on the heels of the "mad cow" scare in Europe.

Large U.S. supplies of beef and competing meats have curbed Australia's exports to the U.S. in 1996. If Australia's beef exports are to increase in 1997, Japan's beef imports will have to return to the growth patterns of early 1996. Meanwhile, South Korea is also becoming a more important market as it liberalizes beef imports.

Dairy supplies are increasing in Australia, and milk output in 1996/97 is forecast to be 4 percent above 1995/96's record of 9 million tons. Most of the increases have been related to productivity, as output per cow has increased faster than dairy cow numbers. Milk production occurs mainly in the southern states

## Wool, Wheat, and Beef Are Australia's Leading Ag Exports



Ag Exports, 1995/96 A\$20.4 million

\*Includes processed and live cattle.
Source: Australian Bureau of Agricultural and Reseource Economics.

Economic Research Service, USDA

of Victoria (63 percent of national output) and New South Wales (13 percent). In 1995/96, Victoria produced 74 percent of Australia's manufacturing milk and the majority of the milk products exported.

Australia plays a leading role in world dairy product trade and, with favorable international prices, dairy product exports have been increasing steadily. Australia's respective shares of world exports of butter, skim milk powder, whole milk powder, and cheese were 14, 20, 10 and 12 percent in 1995.

Like other crops and livestock products, the majority of dairy production is exported. In 1990/91-95/96, butter, skim milk powder, whole milk powder, and cheese exports averaged 56, 79, 82, and 38 percent of production. Because of the strong increase in exports over the last 3 years, export share of production is increasing. Exports go mainly to Asia, principally Japan.

#### Field Crops Look to Export Markets

Australia is the world's second-largest sugar exporter (first if EU countries are counted separately) with an 11-percent market share from 1990/91-1995/96. Sugarcane production is situated almost entirely along the northeast coast of Queensland and New South Wales, where it has little competition from other crops for acreage.

Australia's sugar industry has been undergoing significant expansion in the 1990's as both area under sugarcane production, and refining capacity, have increased sharply. Queensland—where nearly 95 percent of Australia's sugarcane is grown—has expanded its sugarcane acreage by over 25 percent since 1988/89.

With the partial deregulation of the sugarcane industry, new growers have entered the market. The area of land sown to sugarcane was previously determined by a very regulated system. A Queensland state sugarcane board annually set the maximum amount of sugar that each mill

could deliver and still receive the top pool price. Each mill had its own committee of mill and grower representatives that decided the assignment of land individual farmers could grow in a given season.

Since 1994 the total assignment has been determined on the basis of local demand, milling capacity, marketing potential, and environmental considerations. Thus the assignment system no longer inhibits industry growth, with the decision to expand being a completely commercial decision at the mill level. The resulting increase in land assignments to sugarcane has included 240 new growers.

The 1996 production season produced a fourth consecutive record sugarcane harvest in Australia. However, actual 1995/96 sugar production was forecast down marginally from the previous year at 5 million tons due to dry conditions which limited the yield of sugar. Continued expansion in area and a projected 9-percent rise in production are forecast for 1996/97.

Sugar output in western Australia's Ord River region—which only recently returned to production—was expected to produce 40,000 tons of raw sugar from its first commercial crush in mid-December . Eventually the Ord River region's output is expected to be able to supply all of western Australia's sugar needs (about 50,000 tons) with some left over for export to Asian markets.

Australia's sugar exports, at 4.3 million tons in 1995/96, are down slightly from last year but well above the 6-year average (1989/90-1994/95) of 3.3 million tons. Exports in 1996/97 are forecast to rise 7 percent to a record 4.6 million tons. Australia exports primarily raw sugar, but exports of white sugar are increasing rapidly.

Investments in Australia's sugar refining industry have pushed capacity from 850,000 tons in 1989 to an estimated 1.2 million tons in 1996. Even with world sugar prices weakening, Australia's production and exports are forecast to grow over the long term because of recent investments in the sugar industry. In addition, increasing use of long-term

contracts and early-season hedging have had a stabilizing influence on sugar sales, helping to lower price- and income risk on investments.

However, as the number of white sugar refineries continues to increase elsewhere in Asia—particularly in Vietnam, India, and Thailand—competition will increase. A new refinery in Dubai, which is expected to supply Middle East markets with white sugar, has also begun operation, offering further competition in the white sugar market.

Cotton is Australia's most profitable irrigated field crop, and land has been shifting to cotton mainly from irrigated sorghum and oilseeds. Australia's cotton is grown in New South Wales (about three-fourths of annual output) and Queensland (the remaining one-fourth). Cotton area is expected to increase 25 percent in 1996/97 to 380,000 hectares. Because yields are also expected to rise, cotton output is forecast to grow by almost 40 percent to just under 590,000 tons. Exports are also forecast up sharply (by over 50 percent), to about 470,000 tons.

Transgenic cotton varieties are being developed which resist insect pests and therefore reduce chemical usage and costs. The area planted to transgenic varieties in 1996/97, the first year of commercial release, will be limited. Farmers growing this type of cotton must adopt a crop management plan that includes planting conventional cotton near the transgenic cotton to reduce the chances of insects developing resistance to the new variety.

The outlook for Australia's rice industry is optimistic in the near term, with strong growth expected in both domestic and foreign markets. In the longer term, growth may be limited by availability of irrigation water supplies. Domestic consumption of rice has been increasing in Australia with growth in immigration from Asia. In addition, the opening of Japanese and South Korean rice markets in 1995—under World Trade Organizaation market access commitments—has enhanced export prospects.

Although Australia has only about a 4-percent world rice market share, it is a key competitor with the U.S. rice industry in East Asia's rapidly growing japonica rice markets—i.e., Japan and South Korea. Australia, the U.S., and China are the world's only significant suppliers of japonica rice in international markets.

New South Wales grows about 96 percent of Australia's rice (almost entirely japonica varieties), with Queensland producing the remainder. Australia's rice yields are among the highest in the world at over 8 tons per hectare (7,000 pounds per acre), rough basis.

Rice is nearly 100-percent irrigated in Australia and is thus less vulnerable to weather fluctuations. However, the area planted to rice is highly dependent on access to the country's limited irrigation water supplies. Although 1996/97 rice acreage is up 5 percent from a year ago and now stands at a record 155,000 hectares, water availability will likely limit future growth.

Australia's coarse grain industry has leaned heavily on foreign markets in the past as an outlet for production. However, continued growth in the livestock sector could turn the focus to domestic feed markets. Australia's principal coarse grains are barley and sorghum, with some minor production of corn and oats.

Australia's coarse grain production has averaged about 7.9 million tons since 1990/91, with about 3.2 million entering export markets. Barley has accounted for an average 60 percent of Australia's coarse grain production and almost 90 percent of exports. Feed barley had accounted for over half of the barley exports, but malting barley (including malt in grain equivalent) is gaining on the strength of rapid demand growth from China's brewery industry. In 1996/97, ABARE forecasts malting barley to be 54 percent of total barley exports.

Barley area increased by about 3 percent in 1996/97 to 3.3 million hectares. With a return to more normal yields, output is expected to be up 9 percent to 6 million tons (1995/96 saw only a partial recovery from the withering drought of 1994/95

when barley yields hit a 12-year low of 1.18 tons per hectare). An increasing share of area is being planted to malting varieties, which are relatively more profitable because of increased international demand and the availability of other grains for feeding. Key to the future growth of Australia's malting barley exports will be the development of new varieties, especially as the Chinese market becomes more discriminating.

Barley, like wheat, is a winter crop in Australia (May-October dormancy/growing season), while sorghum, corn, oats, rice, and cotton are summer crops (October-April growing season).

## Farm Income Prospects Dampen

The bright 1996/97 crop outlook belies Australia's declining farm income prospects. International prices have dropped steadily from the highs in May. Favorable weather during the growing season (May-September) improved yield prospects at the same time that increases in wheat output were forecast for Argentina, another major Southern Hemisphere wheat exporter. The pool price for the benchmark Australian standard white 10-percent protein was set recently at A\$175 per ton (US\$3.81 per bushel), down sharply from A\$195 in September and from still higher prices at planting.

Along with reduced returns in the livestock sector, and an appreciating Australian dollar (reducing export-dependent revenues still further), the wheat price setback means that 1996/97 returns to farm operations could fall 25 percent from last year. Returns would still be well above the drought-reduced 1994/95 level

Over the longer term, wheat output gains are forecast to be modest, mainly because of the higher returns forecast for wool in the next few years. Wheat exports are forecast to continue to gain as world grain trade is liberalized, and as global economies and populations continue to grow.

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# Dairy Policies Are Limiting U.S.-Canada Trade

hen Canada and the U.S. replaced strict import quotas on dairy products with tariff-rate quotas, to comply with the GATT Uruguay Round agreement, it raised an apparent contradiction with U.S.-Canada trade obligations under the North American Free Trade Agreement (NAFTA).

Under tariff-rate quotas (TRQ's), a country allows goods below a specific quantity (quota) to be imported at a lower tariff rate, while over-quota quantities enter at a higher rate. Canada's over-quota rates on dairy, poultry, egg, and barley products reach 200-350 percent for some dairy products. The U.S. also protects its dairy industry with some tariff-rate quotas, but over-quota tariffs are lower than Canada's.

While U.S. access to Canadian markets for these products improved with the implementation of the U.S.-Canada Free Trade Agreement (FTA) in 1989, it has remained limited. The FTA was expanded into NAFTA in 1994, encompassing Mexico as well as the U.S. and Canada, with separate bilateral agreements on market access for agricultural products. A year later, on January 1, 1995, tariffrate quotas on imports to Canada and the U.S. went into effect with implementation of the Uruguay Round (UR) agreement.

Using the dispute settlement process provided in NAFTA, the U.S. requested consultations with Canada, which were held in March 1995. The two countries subsequently presented written and oral arguments to a five-member NAFTA panel to resolve the dispute. On December 2, 1996, the panel issued its final report, finding that Canada's application of these new tariffs to U.S. goods does conform with its NAFTA obligations. Conse-

quently, U.S. access to Canadian markets for dairy, poultry, eggs, margarine, and barley products remains unchanged. There is no appeal process in NAFTA's dispute settlement mechanism.

The U.S. position, put forward by the U.S. Trade Representative, is that under NAFTA, neither country may impose higher tariffs on imports from the other country than tariffs that were agreed to under the FTA. The U.S. has also argued that each country must eliminate tariffs in accordance with the FTA, and nontariff barriers on trade in these products. Canada's view, articulated by the Department of Foreign Affairs and International Trade, is that it had a right to convert nontariff barriers to TRQ's under the World Trade Organization and to apply those TRQ's to all WTO members, including the U.S.

Because the dairy sectors in both countries are supported, trade issues involving dairy are particularly sensitive, and trade between these two countries is limited.

In both countries, the level of support for dairy products is high compared with support levels for most other agricultural commodities. The level of support (i.e., producer subsidy equivalent) for milk averaged 69 percent in Canada during 1980 to 1995, compared with 58 percent in the U.S. In contrast, the aggregate level of support in 1995 for wheat, for example, was 29 percent in Canada and 23 percent in the U.S.

Border measures have been used to maintain the effectiveness of dairy income support policies in both countries by limiting competition from imported products. In 1996, Canadian over-quota tariffs were 343 percent for butter, 275 percent for cheese, and 270 percent for milk and cream. This compares with a level of around 100 percent for the U.S. These over-quota tariffs effectively stifle large flows of dairy products.

As part of the Uruguay Round agreement, Canada's tariffs rates are scheduled to decrease by at least 15 percent over a period of 6 years. Canada has indicated that the over-quota tariffs for these three